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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,118	01/03/2002	Terry J. Logan	10465/45	1036

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EXAMINER

RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

12

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,118

Applicant(s)

LOGAN ET AL.

Examiner

Kenneth B Rinehart

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18,35-51,59-61,64-67,72 and 75-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15,35-43,45,46,49-51,59-61,64-66,72,76 and 77 is/are rejected.
- 7) ☒ Claim(s) 16-18,44,47,48,67 and 75 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 4/8/03 was filed after the mailing date of the final rejection on 3/13/03. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. The information disclosure statement has application serial number 10/096,681 on it which does not match the number of application 10/034118. However, the attorney docket number does match. Additionally, the 37 CFR 1.116 amendment filed 5/1/03 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the dryer is selected from the group consisting of direct concurrent flow dryers, horizontal single, double and triple pass indirect dryers, and vertical counter flow rotating disk indirect dryers, said drying is conducted using a direct dryer, said drying is conducted using an indirect dryer, reacting scavenged exhaust gases from said drying with at least one reactive material to decrease the amount of CO₂, SO₂, and SO₃ in said exhaust gases and thereby decrease emissions from the drying, said coal and said dried mixture of organic waste and coal combustion by products are mixed and then pulverized, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15, 35-43, 45, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurtz in view of Zauderer. Wurtz discloses mixing organic waste (sludge, fig.), one or more coal combustion by products (beneficiating material, col. 5, lines 57-60), and one or more alkaline additives (quicklime, fig.) to form an organic waste/ coal combustion by products/alkaline additive by product mixture (fig.), drying said organic waste/coal combustion by-products/alkaline additive by product mixture with heat (col. 8, lines 1-13), causing ammonia to be liberated from said organic waste (ammonia, fig.), said drying comprises drying the organic waste coal combustion by products/alkaline additive by product mixture to at least 75 % solids or 50 % (col. 8, line 45-48), drying with heat the organic waste coal combustion by product mixture to at least 50 % solids forming a dried organic waste coal combustion by product mixture and causing ammonia to be liberated from said organic waste (col. 5, lines 17-21, ammonia, fig. 1) the organic waste coal combustion by product mixture has a PH of at least 9.5 (col. 5, line 60), further including mixing lime with the organic waste coal combustion by products (col. 5, line 54), said organic waste comprises waste selected from the group consisting of sewage sludges, animal manures, pulp and paper waste, fermentation waste, food waste, paper and cardboard, other industrial organic waste and mixtures thereof (col. 1, line 13-15), said coal combustion by products comprise at least one by product selected from the group consisting of fly ash, fluidized

Art Unit: 3749

bed ash, flue gas desulphurization by products, lime, calcium hydroxide, calcium carbonate, and mixtures thereof (col. 3, lines 46-53), said drying is conducted using a direct dryer (4, fig.), when said coal combustion by product comprises an alkaline mineral by-product, the drying step produces a further by product (6, fig.). Wurtz discloses applicant's invention substantially as claimed with the exception of introducing said liberated ammonia into a coal burner of a coal burning power plant, reacting scavenged exhaust gases from the power plant with at least one reactive material so as to decrease the amount of pollutant gases in said exhaust gases. Zauderer teaches introducing said liberated ammonia into a coal burner of a coal burning power plant (col. 6, line 59), reacting scavenged exhaust gases from the power plant with at least one reactive material so as to decrease the amount of pollutant gases in said exhaust gases (col. 7, lines 18-21, col. 1, lines 41-45) for the purpose of providing a cheap alternative for a reducing agent. It would have been obvious to one of ordinary skill in the art to modify Wurtz by including introducing said liberated ammonia into a coal burner of a coal burning power plant as taught by Zauderer for the purpose of providing a cheap alternative for a reducing agent to lower operating costs. Wurtz in view of Zauderer discloses applicant's invention substantially as claimed with the exception of said dryer is selected from the group consisting of direct concurrent flow dryers, horizontal single, double and triple pass indirect dryers, and vertical counter flow rotating disk indirect dryers, said drying is conducted using a direct dryer, said drying is conducted using an indirect dryer. It would have been an obvious matter of design choice to modify Wurtz to provide said dryer is selected from the group consisting of direct concurrent flow dryers, horizontal single, double and triple pass indirect dryers, and vertical counter flow rotating disk indirect dryers, said drying is conducted using a direct dryer, said drying is conducted using an

Art Unit: 3749

indirect dryer, since applicant has not disclosed that the type of dryer solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art, since the dryer of Wurtz will perform the invention as claimed by the applicant.

Claim 49-51, 59-61, 64-66, 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurtz in view of Baer et al. Wurtz discloses mixing organic waste (sludge, fig.), one or more coal combustion by products (beneficiating material, col. 5, lines 57-60), and one or more alkaline additives (quicklime, fig.) to form an organic waste/ coal combustion by products/alkaline additive by product mixture (fig.), drying with heat said organic waste/coal combustion by-products to at least 50 % solids forming a dried organic waste coal combustion by product mixture (col. 8, lines 1-13, col. 5, lines 17-21, ammonia, fig. 1), causing ammonia to be liberated from said organic waste (ammonia, fig.), ammonia liberated from organic waste upon drying a mixture of organic waste and one or more combustion by-product (ammonia fig.). Wurtz discloses applicant's invention substantially as claimed with the exception of mixing the dried organic waste coal combustion by product mixture with coal, the coal is pulverized coal, feeding the mixture formed by mixing the by product with coal into said coal burner, introducing said liberated ammonia into a coal burner of a coal burning power plant, a coal burner of a coal burning power plant; a coal feed supplying coal to said coal burner; and an ammonia feed to said to said coal burner, the coal feed comprises coal and a dried mixture of organic waste and coal combustion by product. Baer et al teaches mixing the dried organic waste coal combustion by product mixture with coal (60, fig. 2), the coal is pulverized coal (40, fig. 2), feeding the mixture

formed by mixing the by product with coal into said coal burner, the coal feed comprises coal and a dried mixture of organic waste and coal combustion by product (60, fig. 2), introducing said liberated ammonia into a coal burner of a coal burning power plant, a coal feed supplying coal to said coal burner; and an ammonia feed to said to said coal burner (45, fig.2), a coal burner of a coal burning power plant (40, fig. 2) a coal feed for supplying coal to said coal burner (40, fig. 2) for the purpose of removing pollutants. It would have been obvious to one of ordinary skill in the art to modify Wurtz by including mixing the dried organic waste coal combustion by product mixture with coal, the coal is pulverized coal, feeding the mixture formed by mixing the by product with coal into said coal burner, the coal feed comprises coal and a dried mixture of organic waste and coal combustion by product, introducing said liberated ammonia into a coal burner of a coal burning power plant, a coal burner of a coal burning power plant; a coal feed supplying coal to said coal burner; and an ammonia feed to said to said coal burner as taught by Baer et al for the purpose of removing pollutants to meet environmental requirements.

Claims 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer et al in view of Rivers. Baer et al discloses a coal burner of a coal combustion power plant (10, fig.2); and a feed of coal (40, fig. 2) and a mixture of organic waste coal combustion by products to said coal burner, one or more coal combustion by products and one or more alkaline additives (58, fig. 2), wherein said coal and said mixture of organic waste coal combustion by products or one or more coal combustion by products and one or more alkaline additives are mixed and then ... (60, fig. 2). Baer et al discloses applicant's invention substantially as claimed with the exception of pulverised. Rivers et al teaches pulverized for the purpose of providing superior performance. It would have been obvious to one of ordinary skill in the art to modify Baer et al by including

Art Unit: 3749

pulverised as taught by Rivers for the purpose of increasing the surface area of the additive to provide superior performance of the additive.

Allowable Subject Matter

Claim 75 is allowed.

Claims 16-18, 44, 47, 48, 67, 75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-308-9303 for After Final communications.

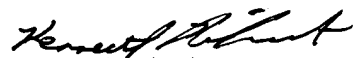
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

KBR
May 14, 2003

Application/Control Number: 10/034,118

Page 8

Art Unit: 3749



Kenneth Rinehart

Patent Examiner

AU 3749